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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,923	12/15/2005	Ken Maeda	1155-0288PUS1	4358
2292 7590 03/13/2009 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER				
MESH, GENNADIY				
ART UNIT		PAPER NUMBER		
1796				
NOTIFICATION DATE		DELIVERY MODE		
03/13/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/560,923

Applicant(s)

MAEDA ET AL.

Examiner

GENNADIY MESH

Art Unit

1796

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-9 and 11-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-9 and 11-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 13, 2009 has been entered.

Claims 2 and 10 are cancelled. Claims 11-13 are newly added. Claims 1, 3 - 9 and 11-13 are active.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1, 3 - 9 and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hori et al. (US 2002/0193555).

Regarding Claims 1, 3- 9 and 11-13 Hori discloses titanium catalyst (see [0025]) for process of preparation of a polyester resin by polycondensation of an aromatic dicarboxylic acid with aliphatic diol (see abstract and [0162]) useful for production of blow molded products (see [0206]), wherein titanium catalyst present in

form of solution, containing mixture of titanium, aliphatic diol and polyhydric alcohol – see abstract and [0025].

Regarding composition of titanium containing solution as it claimed by Claims 1, 3,4,5 and 7 : Hori discloses that , titanium compound may be present in solution in the amount from 0.3wt.% to 10wt% (see [0125]), aliphatic diol (as ethylene glycol) can present in the amount more than 80 wt.% (see [0310]), polyhydric alcohol (glycerol) in a range from 1wt.% to 50 wt.% - see [0029] and water in the amount from 0.05 wt% to 2wt.% – see [0028].

Regarding limitation of Claim 1, 4, and 6 as " a titanium containing solution , wherein said titanium is a monomeric or a polymeric titanium compound including not more than 100 units, an aliphatic diol and a polyhydric alcohol as starting material" : note, that Hori use "monomeric" titanium compound as a starting material, for example titanium halide, for example titanium tetrachloride - see [0063] and for this reason, also disclosed subject matter claimed in Claims 12 and 13.

Same related to limitation of Claim 6: as substantially same, titanium containing solution disclosed by Hori, will inherently have same particle sizes as it claimed by applicant in Claim 6. Also note, that particle of any size may be present in composition , because language of Claim 6 does not exclude presents of any specific particles of any size.

It is noted, that Claims 1, 6 and 11 are in product-by-process format claims. Case law holds that "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The

patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Thus, Hori anticipate claimed subject matter of Claims 1, 3-9 and 11-13 or as alternative it would be obvious to one of ordinary skill to obtain same product by different process, until unexpected results can be shown by Applicant.

Response to Arguments

3. Applicant's arguments filed on January 13, 2009 have been fully considered but they are not persuasive.

Applicant's arguments related to Claims 1, 3 - 9 and 11-13 rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hori et al. (US 2002/0193555) based on following:

Applicant stated that "Since Hori does not disclose a monomeric or a polymeric titanium compound including not more than 100 units for the preparation of the titanium containing solution". This statement base on data provided by Comparative Example 11 because " The titanium compound, of which the degree (n) was assumed to be 109 or higher, described in Comparative Example 11 of the present specification was also prepared in the same manner of Hori".

Note, that degree of polymerization of titanium containing compound was measured by Applicant on **solid particles before dissolving in solvent. Because, catalyst**

solution obtained by dissolving solid particles in solvent (which is used for polyester polymerization) which lead to significant reduction in particles size(from microns to nanometers) degree of units in solid particles is not applicable to degree of units in particles after dissolving in solvent.

Note, that Comparative example 11 provide data for particles size (see Table 4 on page 103 of original Specification) of titanium containing solution obtained by dissolving titanium containing solid particle at 130 °C during 2 hours. However, Hori pointed out that preferable temperature for preparation of titanium containing solution is from 140 °C to 195 °C. It is clear that aggregates of particles may be further broken at higher temperature. Because no data was presented for preferable range of temperature disclosed by Hori, than Applicant's arguments that titanium containing solution has different particles range (see Table 4) are not persuasive.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GENNADIY MESH whose telephone number is (571)272-2901. The examiner can normally be reached on 10 a.m - 6 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272 1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gennadiy Mesh
Examiner
Art Unit 1796

/GM/

/Vasu Jagannathan/
Supervisory Patent Examiner, Art Unit 1796